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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,992	08/06/2001	Albert Boronat	16516.107	7088
	590 03/21/2003			
ARNOLD & I	PORTER 'G DEPARTMENT; RM	1126(b)	EXAMI	NER
555 12TH STREET, N.W. WASHINGTON, DC 20004-1206			BAUM, STUART F	
WISHINGTO	11, DC 20004-1200		ART UNIT	PAPER NUMBER
			1638	
			DATE MAILED: 03/21/2003	-

Please find below and/or attached an Office communication concerning this application or proceeding.

The MAILING DATE of this communication app Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period w Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earmed patent term adjustment. See 37 CFR 1.704(b).	Y IS SET TO EXPIRE 1 No. 36(a). In no event, however, may a within the statutory minimum of the vill apply and will expire SIX (6) MO. cause the application to become A date of this communication, even in	MONTH(S) FROM a reply be timely filed airty (30) days will be considered timely. DNTHS from the mailing date of this communication.
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Status		
1) Responsive to communication(s) filed on		
	s action is non-final.	
3) Since this application is in condition for allowa		ottorn proposition as to the
closed in accordance with the practice under E Disposition of Claims	Ex parte Quayle, 1935 C	LD. 11, 453 O.G. 213.
4)⊠ Claim(s) <u>1-10</u> is/are pending in the application.		
4a) Of the above claim(s) is/are withdraw	n from consideration.	
5) Claim(s) is/are allowed.		
6) Claim(s) is/are rejected.		
7) Claim(s) is/are objected to.		
8) Claim(s) <u>1-10</u> are subject to restriction and/or el	lection requirement.	
Application Papers	η	
9)☐ The specification is objected to by the Examiner.		
10)☐ The drawing(s) filed on is/are: a)☐ accept	ted or b)☐ objected to by t	the Examiner.
Applicant may not request that any objection to the		
11) The proposed drawing correction filed on	is: a) ☐ approved b) ☐ o	disapproved by the Examiner.
If approved, corrected drawings are required in repl		
12) The oath or declaration is objected to by the Exa	miner.	
Priority under 35 U.S.C. §§ 119 and 120		
13) Acknowledgment is made of a claim for foreign	priority under 35 U.S.C.	§ 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:		
1. Certified copies of the priority documents	have been received.	
2. Certified copies of the priority documents	have been received in A	Application No.
3. Copies of the certified copies of the priorit application from the International Bure	y documents have been	received in this National Stage
* See the attached detailed Office action for a list of		
14) Acknowledgment is made of a claim for domestic	priority under 35 U.S.C.	§ 119(e) (to a provisional application)
 a) The translation of the foreign language provi 15) Acknowledgment is made of a claim for domestic 	priority under 35 U.S.C.	een received. && 120 and/or 121
ttachment(s)		33 120 and/01 12 (.
Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of to	Summary (PTO-413) Paper No(s) nformal Patent Application (PTO-152) .
Patent and Trademark Office O-326 (Rev. 04-01) Office Actio	on Summary	

Art Unit: 1638

Page 2

DETAILED ACTION

Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-5, and 7-9, drawn to a substantially purified nucleic acid molecule encoding a protein, transformed cell, transgenic plant and method of producing a transgenic plant having seed with an altered isoprenoid compound level comprising transforming a plant with a nucleic acid molecule wherein the nucleic acid molecule is in sense orientation, classified in class 800, subclass 290 for example.
 - II. Claim 6, drawn to an antibody, classified in class 530, subclass 387.1 for example.
 - III. Claims 9 and 10, drawn to a method of producing a transgenic plant having seed with an altered isoprenoid compound level comprising transforming a plant with a nucleic acid molecule wherein the nucleic acid molecule is in antisense orientation, classified in class 800, subclass 290 for example.

If Applicant elects either Group I or Group III, Applicant is also to elect <u>one</u> nucleic acid sequence from list "A" and <u>one</u> corresponding amino acid sequence from list "B". For example: SEQ ID NO:6 and SEQ ID NO:49.

- A. SEQ ID NOs: 1 through 3, and 5 through 47.
- B. SEQ ID NO:4; SEQ ID NO:48; SEQ ID NO:49; SEQ ID NO:50.
- 2. Inventions I through III are unrelated to each other because nucleotide sequences either encoding different proteins, or specifying specific expression patterns and non-coding nucleic

Art Unit: 1638

acid sequences are structurally distinct chemical compounds and are unrelated to one another, as are different proteins structurally distinct chemical compounds and unrelated to one another. In

the present application, Applicants are claiming a nucleic acid molecules in sense and antisense

Page 3

orientation. It is recognized in the art, that nucleic acid molecules in antisense orientation are

used to down-regulate the expression or reduce the activity of a specific protein whereas over-

expressing a nucleic acid molecule in sense orientation is used to upregulate or increase the

activity of a specific protein. Therefore, these sequences are thus deemed to normally constitute

independent and distinct inventions within the meaning of 35 U.S.C. 121. Absent evidence to

the contrary, each such sequence is presumed to represent an independent and distinct invention,

subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.141 et seq (see

MPEP 803.04 and 2434). This requirement is not to be construed as a requirement for an

election of species, since each nucleotide and amino acid sequence is not a member of a single

genus of invention, but constitutes an independent and patentably distinct invention.

3. Inventions I through III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are distinct one from the other because the starting material, method steps

and end products are distinct from each other.

Art Unit: 1638

4. Because these inventions are distinct for the reasons given above, have acquired a separate status in the art as shown by their different classification, and the literature and sequence searches required for each of the Groups are not required for another of the Groups, restriction for examination purposes as indicated is proper.

- 5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).
- 6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).
- 7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart Baum whose telephone number is (703) 305-6997. The examiner can normally be reached on Monday-Friday 8:30AM 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on (703) 306-3218. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3014 or (703) 305-3014 for regular communications.

Page 4

Art Unit: 1638

/921,992 Page 5

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, who may be contacted at 308-0196.

Stuart F. Baum Ph.D.

March 7, 2003

PHUONG T. BUI